

nke NOSS In Situ Density Sensor Presentation



nke Optical Salinity Sensor (NOSS) has emerged as one of the first underwater sensors for in situ refractive index measurement in the past years, opening up the scope of possibilities of direct access to density parameter. A presentation will take place in Southampton during Ocean Business Exhibition on Wednesday 15 April from 9-10AM in Node Room 064/03 of the NOC, presented by Damien Malard, research engineer in nke Instrumentation.

The introduction in 2010 of the Thermodynamic Equation of Seawater TEOS-10 has represented an important milestone towards the implementation of a global thermodynamic ocean model. An accurate evaluation of the ocean's role in heat transport and in climate change requires the knowledge of absolute salinity, the traceability of its

measurement to the SI becomes crucial and the development of absolute salinity measurement methods and tools becomes essential.

The sensor became a pioneer for initiating experimental studies on the refractive index/density of seawater with anomalous composition. It has been designed to be integrated on surface buoys, sea bottom observatories and profiling Provor floats (down to 2,000m).

Oceanographic measurement campaigns (PROTEUS 2010, 2012) highlight the NOSS sensor capabilities of measuring refractive index/absolute salinity/density profiles in open-ocean at 2,000m deep, to the same sampling rate of a reference CTD profiler.

<https://www.hydro-international.com/content/news/nke-noss-in-situ-density-sensor-presentation>
